VEHICLE SPECIFICATIONS

F.O.B.

Flathead Eagle Transit
160 Kelly Road
Kalispell, MT 59901

SCOPE:

CURRENT MODEL BODY ON CHASSIS TYPE COACH CAPABLE OF SEATING TWENTY-FOUR (24) FORWARD FACING AMBULATORY ADULT PASSENGERS, A DRIVER, A WHEELCHAIR LIFT, AND TWO (2) WHEELCHAIR SECUREMENT STATIONS.

MINIMUM TECHNICAL REQUIREMENTS

DIMENSIONS:

	SPECIFICATIONS		FURNISHED
1.	Body Length - Please provide the body length.	1.	
2.	Body Width - Please provide the body width.	2.	
3.	Wheelbase - 208” minimum and 228” maximum wheelbase MUST be specified on cover page.	3.	

MINIMUM TECHNICAL REQUIREMENTS

DRIVETRAIN:

	SPECIFICATIONS		FURNISHED
1.	Engine – 5.9 Cummins Diesel Engine ISB-02 with 215hp w/550 lb, -ft torque @ 1,600rpm. The engine shall be located in the front of the vehicle. Electronic fuel injection. Engine features:	1.	
	A. Replaceable pleated paper element type air cleaner		A.
	B. Oil Filter easily reached without removal of any major component with a one-quart capacity and an internal bypass valve.		B.
	C. Factory oil filler extension neck		C.
	D. The engine compartment shall be completely sealed to prevent smoke and odors from entering the		D.

	interior of the coach		
	E. The factory installed alternator, water pump, and one 10 cubic inch displacement air-conditioning compressors will be driven by a common serpentine belt. The second 10 cubic inch air conditioning compressor will be driven off the fan pulley.		E.
	F. The engine will have an electronic protection system. The electronic integral warning & de-rate protection system shall be supplied. The system shall activate in the event of low oil pressure or high coolant temperature.		F.
	G. The air cleaner shall be a single stage dry type with a high-grade waterproof cellulose filter element. The 10 micron filter element and housing shall be disposable. The air cleaner will be accessible from the front of the vehicle. Intake air to the engine from the air cleaner will pass through a 4-inch minimum diameter tube.		G.
	H. The chassis exhaust system will use a 3-inch aluminized steel exhaust and a 4 inch aluminized tail pipe and mounted on rubber isolators. The system will meet all Federal and State regulations. The engine and transmission that is being proposed should be able to allow the bus to maintain a speed of forty-four (44) miles per hour on a 2.5% grade.		H.
	I. The diesel engine will be able to operate with manufacturer specified Ultra Low Sulfur Fuels (ULSF) diesel and/or at least a manufacturer specified 2% bio diesel blend (B2).		I.
2.	<u>Radiator/Coolant System</u> - Heaviest-duty extra cooling capacity radiator, water pump, and clutch-type fan. Cooling system to be winterized for 40 degrees below zero (0).	2.	
3.	<u>Transmission</u> - The transmission shall be an Allison model 2200 PTS five speed automatic transmission minimum, cooled by an external “transmission oil cooler” with capacity to match GVWR of vehicle and filler extension neck for adding fluid. The oil pan on the transmission will be quipped with a hex head magnetic type drain plug. The transmission will be equipped with	3.	

	a heat exchanger located under the bottom tank of the radiator. There will also be an external spin-on filter. The transmission area will be lined with sound and heat barrier materials to prevent any transmission noise to the interior of the coach.		
4.	Drive Shaft - The drive shaft(s) shall be completely encircled by a metal guard that will prevent the shaft, if broken or separated, from whipping through the floor of the vehicle or from dropping on the ground, in accordance to 49 CFR Part 393.89	4.	

CHASSIS SPECIFICATIONS:

	SPECIFICATIONS		FURNISHED
1.	Chassis – 20,500 pounds GVWR minimum, MB55 Freightliner or equal. Please provide the make, model and year. The GVWR must meet or exceed the vehicle weight including all specifications and options.	1.	
2.	Frame - Factory frame or extension to frame (extension must equal or exceed strength of factory frame and be connected so no cracking may occur between the connection on the factory frame and the extension) must be sufficient length so no more than 12" of the manufactured body extends over the rear end of the frame. Frame extensions between the wheels are not permitted. Overhang behind rear wheels may not exceed 25% percent of the wheelbase.	2.	
3.	Rear Axle and Differential - Truck-type, single rear axle with dual rear wheels Gear Ratio of 4:10 minimum.	3.	
4.	Springs and Shock Absorbers - The front and rear springs shall have a ground load rating equal to or exceeding the GVWR of the vehicle. Helpers spring(s) shall be installed on the wheelchair lift side of the vehicle to keep the bus level when fully occupied. This vehicle will also be equipped with a MOR/ryd "RL" suspension system or equal. If an equivalent part(s) is installed, please provide a detailed part description including a valid reason for such alteration. Shock absorbers on each chassis shall be equipped with front and rear, heavy-duty; double acting gas filled shock absorbers, the highest rating available from the	4.	

	OEM. If an equivalent part(s) is installed, please provide a detailed part description including a valid reason for such alteration.		
5.	Brakes - Dual hydraulic power assisted system with disc-type brakes on the front and rear wheels. A hand or foot operated parking brake shall be supplied with a warning light on the dashboard. Vehicle must be equipped with Anti-Braking System.	5.	
6.	Wheels and Tires - Wheel and tire size and rating must be of sufficient size and strength to meet GVW rating of chassis. Tires to be steel-belted, all season 16" radial with a 10 ply rating minimum. All tires must be the same size. All wheels must be painted white to match exterior bus body. Must have spare tire, wheel, hydraulic jack, and lug wrench. Jack and lug wrench must be secured in the vehicle at the time of delivery. Spare tire and wheel sized the same as above and stored on a mount on the back of bus with tire cover.	6.	
7.	Steering - Each vehicle shall be equipped with OEM power-assisted steering. Steering shall incorporate an OEM factory installed tilt wheel feature and cruise control.	7.	
8.	Battery - Two (2) heavy-duty with reserve capacity of 160 minutes and with 700 Cold Cranking Amps (CCA) and to be stowed in a slide compartment outside of vehicle, no batteries will be underneath the hood. The compartment for the batteries must have a sliding tray for easy access when changing the batteries. The compartment door must be lockable and be hinged. The battery compartment must be enclosed on all sides and be mounted and secured so no movement can occur.	8.	
9.	Alternator - 190 Amp minimum, 12 volt heavy duty alternator by Powerline Model 24-216 or equal which will include a Powerline wiring harness and voltage regulator or equal.	9.	
10.	Electrical - All wiring shall conform to the current applicable standards of the Society of Automotive Engineers and be sufficient size to carry the required current without excessive voltage drop. The wiring shall be color-coded, function coded or	10.	

	permanently and continuously numbered for ease of identification and must be continuously loomed. A hard copy of the wiring diagram will be given to the grantee on or before delivery that shows the chassis, bus body, wheelchair lift, heaters, air conditioning and all other accessories wiring system. All switches and wiring circuits shall be protected with circuit breakers and/or fuses and properly labeled for identification.		
11.	Gauges - Vehicle shall be equipped with the following needle-type gauges: A. Amp meter or Voltmeter	11.	A.
	B. Headlight on indicator and headlight high beam indicator; and directional signal and flasher action light		B.
	C. Voltmeter and oil pressure gauge		C.
	D. Fuel tank level gauge		D.
	E. Speedometer with odometer		E.
	F. Engine temperature gauge or over-heat warning light		F.
12.	Fuel Tank - A minimum of 75 U.S. gallons, full at time of delivery. Access to fuel tank must be lockable.	12.	
13.	Horn - Dual	13.	
14.	Hood - To have latch release from inside of vehicle	14.	
15.	Wipers - Two heavy duty electric two-speed windshield wipers with intermittent feature controlled by a switch shall be furnished. Windshield washer is to be included, with a reservoir easily accessible for filling.	15.	
16.	Undercoating - The entire underside of the body which includes the floor members, the side panels below floor level and the fender wells shall be undercoated, at the time of manufacture, with a nonflammable resin type polyoleum or equivalent. Any equivalent undercoating must comply with MIL-C-62218A or MIL-C-0083933A. If an equivalent part(s) is installed, please provide a detailed part description including a valid reason for such alteration. All opening in the floorboards and firewall shall be sealed. Fenders and splash aprons	16.	

	(underskirt) of durable construction shall be provided to provide maximum deflection of the wheel splash. There shall be sufficient wheel well clearance for snow chains.		
17.	Radio - AM/FM and compact disk player with a minimum of four (4) speakers for passenger and driver area. Must have digital tuner and clock. The unit will be mounted in the dash and within arms reach of the operator's seat.	17.	
18.	Block Heater - A minimum 800 watts, with easily accessible cord will be installed on diesel motors. The cord will be extended from the engine block through the front grill and secured.	18.	
19.	Back-up Alarm - Connected with back-up lights to produce an intermittent sound to warn others when vehicle's transmission is shifted into reverse and vehicle movement is backwards.	19.	
20.	Headlights - This vehicle will have day-time running lights that will turn on when the vehicle is started and will shut off when vehicle ignition is in the off position.	20.	
21.	Exhaust System - The exhaust system will exit on the street side of the bus and behind the street side rear duals. The exhaust will not interfere with the rear mud-flaps.	21.	
22.	Bumpers - The front bumper will be OEM and the bus manufacturer will provide the rear bumper. The rear bumper must be a Transpec Energy Absorbing model 5000 bumper or a Romeo Rim energy absorbing bumper or approved equal. Rear bumper is to include an anti-ride feature. The highest possible quality of construction is required. If an equivalent part(s) is installed, please provide a detailed part description including a valid reason for such alteration. If an equivalent part(s) is installed, please provide a detailed part description including a valid reason for such alteration.	22.	

BODY SPECIFICATIONS:

	SPECIFICATIONS		FURNISHED
1.	Body Structure - The coach shall have a heavy-duty	1.	

	unit body-type structure. The sidewall structure to consist of 3/4" x 3/4" 16 gauge steel and 3/4" x 1-1/2" 14 gauge steel tubing. The body structure shall be of durable metal construction or laminated honeycomb fiberglass adequately reinforced at all joints and points of stress with sufficient strength to support the entire weight of the fully-loaded vehicle on its top or side if overturned. The vehicle shall safely withstand road shock and other conditions found in transit operation. The body shall be securely fastened to the under-frame structure so that the entire frame shall act as one unit without any movement in joining. Front, side, and back panels shall be secured to the floor so as to result in a permanent, fully integrated structural unit. The minimum interior height is to be no less than 75” inches measured from the floor at the center aisle to the ceiling directly above. Ceiling height must be listed on cover page of bid. Any compromise of the ceiling height exceeding 3 inches at any point must be listed in the exceptions. Roof shall consist of a steel cage. The roof structure will consist of 3/4" x 3/4" 16 gauge and 3/4" x 1-1/2" 14 gauge steel tubing. The exterior surface shall be a gel coated surface and shall form a one-piece seamless roof. Insulation in roof to be ¾ inch wood core or equivalent. No part of the roof structure is to have gaps where no insulation is present. Insulation MUST cover all areas of the roof. It is the intent of the buyer to purchase a standard industry modified vehicle insofar as it meets or exceeds the following specifications. All modifications shall comply with all applicable Federal Motor Vehicle Safety Standards including FMVSS 220 rollover standards. The manufacturer must be certified by the National Traffic Safety Administration to manufacture or alter vehicles in accordance with the Code of Federal Regulations, Title 49, and parts 567-568. On "cutaway" conversions, added bodies must be securely fastened to the basic vehicle structure, bolted securely through the chassis rail flange at the floor, and with added reinforcing plates or comparable method. The method of attachment must conform to chassis OEM body builder's requirements. Overall body length not to exceed 363” including bumpers. Overall body width not to exceed federal and state standards.		
2.	<u>Passenger Door and Step-well</u> - Provide an	2.	

	electrically-actuated heavy-duty door opener. The switch will be located conveniently in the control panel within ½ arm's length and about chest high for the driver to operate. Switches located over the driver's head will not be accepted. The door must not intrude into entry area and shall be securely affixed to structural members of body to ensure rigidity. Door to be double folding or split-type with a flexible soft rubber cushion at least 1" in width on the meeting edge and bottom of doors for seal to step-well with enough pressure to remain tightly closed at highway speeds. Driver must be able to secure the vehicle and gain access from the outside. No part of the step-well shall be outside of door when closed (if any part of the step is outside the door when closed the vehicle will not be accepted). Door to be located on right side of the vehicle. Clear opening entrance with a minimum of 36-inch door opening width. The passenger door opening height is to be 78 inches minimum from top of first step to door header. Ground to first step shall not exceed 11 inches plus or minus 1 inch in height. Each additional step will have a maximum 9 inch rise with 9 inch minimum depth. All steps should be covered with anti-skid, ribbed, molded, rubber tread. The vehicle shall have a heated step-well entry to help keep the steps from having ice build up during the winter months. The heated step-well will be an electrical mat and have a switch on the driver's control panel to turn power on and off. Left side drivers door to be supplied by chassis manufacturer.		
3.	<u>Interior</u> - All interior panels will be vinyl-coated metal, carpeted or equal alternative. All materials and treatments shall be flame retardant and treated to be easily cleaned. Colors of covering shall harmonize with exterior colors. All surfaces and items of hardware in passenger compartment having sharp edges, corners, or angles shall be padded with a heavy-duty vinyl-covered energy absorbing material for safety. Interior wall panels may be made of Fiberglass Reinforce Plastic (FRP), and the ceiling may be covered with an automotive style cloth, and the driver's cab ceiling may be covered in padded vinyl (for better sound absorption). All materials must be flame resistant and meet FMVSS 302.	3.	
4.	<u>Floor</u> – The floor on the bus will be a flat-floor, which	4.	

	means no wheel wells will be accepted. The floor shall be covered with a minimum of ¾" inch exterior marine grade plywood. The flooring must be a one-piece seamless design with a .024 aluminum vapor barrier laminated to the bottom of the floor. Vapor barrier seams must be "S" locked together so that water cannot get under barrier and cause the wood to rot. The step-well, entrance area, center aisle, passenger area, and also the wheelchair securement stations shall be overlaid with 2.2mm Altro Transfloor TFCR2233 Zeal Safety Vinyl Flooring or equivalent (NOT CARPET). Seams and joints shall be permanently sealed by heat welding. Color of floor shall be Zeal and shall contrast with the seats so to be easily distinguished by the visually impaired person. All step edges shall have a band of bright contrasting color (white or yellow) running the full width of the leading edge.		
5.	Aisle - 17" minimum width between seat cushions.	5.	
6.	Windows - Driver's door glass and front windshield shall have manufacturer's standard tint. The window in front of the passenger door should be all glass and of maximum size to view oncoming traffic. All windows, except the windshield, rear, and doors shall be egress transit type or a T-slide panel type, a minimum of 780 square inches. All side windows shall be top vented to allow for ventilation and provide a clear view to the outside from each seat position. All rear and passenger glass is to be of the safety-type tinted to a maximum of 31% light transmission in the passenger compartment. Rear window shall have wide-angle view lens to improve vision directly in back of the vehicle. All passenger windows shall be 36" X 36".	6.	
7.	Emergency Exits - A 30-inch by 50-inch minimum, egress type rear emergency exit will be provided to meet FMVSS-217 standards. All passenger side windows will be emergency egress type with the fastening device to be located inside the vehicle. All emergency exits will be marked with instructions for proper use. No seats or other objects shall be placed in the vehicle, which restricts passageway to an emergency exit to less than 16 inches.	7.	
8.	Doors - All doors but the passenger door must be	8.	

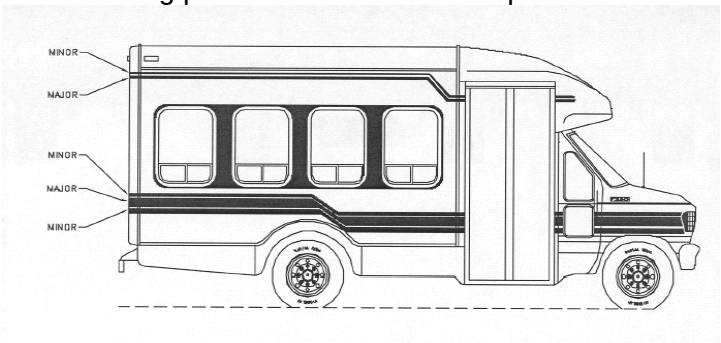
	lockable by key from outside of vehicle. If wheelchair lift door and rear emergency doors are provided, they must be keyed the same. All doors must be easily operable from inside the vehicle.		
9.	Ceiling Vents/ Escape Hatch - There will be two (2) dual purpose roof vents that offer adjustable fresh air ventilation and a release handle permitting operation as an emergency exit (Transpec Triple Value Model 1100 or approved equal).	9.	
10.	Mirrors - Exterior mirrors to be Lucerix brand or equal. Street-side & curbside mirror head to be a 15" mirror head with street-side mirror bracket to be a break-a-way style cast window mount. Curbside mirror bracket to be a break-a-way style with a cast fender mount. The mirrors will be electric and heated and the control shall be on the left side of the vehicle. The control can be mounted in the driver's control panel or in the dash and must not diminish the appearance of the interior of the vehicle. Clear and full view of right exterior mirror through the wiper path must be provided. An interior mirror 6" x 16" minimum shall be provided to afford a view of all passengers. Mirror shall have metal backing and frame with rounded rubber corners and protected edges.	10.	
11.	Driver's Seat - High-back driver's seat with armrests (stowaway), must have manually controlled air lumbar support and covered with deluxe heavy-duty transit grade cloth level (6). Driver's seat shall have vertical fore and aft slide. Certified shoulder and lap seat belt with automatic retractor shall be provided. The driver's seat will be a Recaro Ergo MC II or equal. Seat must be supplied with a 120 psi operating pressure connected to a small reservoir tank. The fore-aft travel must be a maximum of 10". The seat must meet the FMVSS 302, 207, and 210 requirements. The seat will have left and right side arm rests. The seat will have a three point safety belt, the shoulder part will be mounted to the wall and the lap belt portion shall be mounted to the seat frame. Color of driver's seat and armrest shall match with passenger seating. The driver's seat will be cloth even if the passenger seats are vinyl.	11.	
12.	Interior Lights - A minimum of six (6) overhead dome	12.	

	lights mounted in the ceiling will be required to allow for illumination for passengers entering and exiting the vehicle. Mounted so that if equipped with overhead storage racks they will not be obscured by contents of racks. The overhead dome lights will not be mounted on the storage compartments. Overhead entrance light and two (2) entry step-well lights (one on each side of the step-well) shall be provided to ensure illumination of step-well. These lights shall illuminate automatically when door is opened. Personal reading lights will be provided for each seat position. The person in the seat will have a switch to turn the light on/off. The driver of the bus will have total control of turning the power to the personal reading lights and dome lights. The switch for the driver will be in the master control panel (which will not be located above the driver's head).		
13.	<u>Exterior Lights</u> - Exterior light shall be in accordance with Federal Motor Carrier Safety Requirements. All exterior lights should be "LED TRUCK LITE LIGHTING" or approved equal. All exterior lights shall be armored or recessed to prevent breakage from minor impact. There will be one (1) light mounted above or to the left of the entrance door and will illuminate the ground around the door per ADA requirements when the passenger door is opened. Two (2) lights will be installed for wheelchair lift usage at night. One (1) light will be mounted above the wheelchair door and will illuminate the lift platform when the platform is on the ground. This light must be mounted outside of the vehicle; no light will be accepted if mounted inside of the vehicle. The second light will be a 3" minimum and will be installed below the wheelchair lift door and will be mounted flush with the body of the bus to prevent breakage and will illuminate the platform when on the ground also. Lights must be mounted securely to the vehicle and wiring must be covered with light cover. The two (2) lights above/below the wheelchair lift door and also the passenger entrance door will not be LED lights. The vehicle will also have mid-ship blinkers mounted above the rear dual wheels. The clearance lights for front and rear of the vehicle will also be LED lights. If installing wheelchair lift lighting at locations other than as specified, the lights must be mounted and designed to illuminate the lift platform when it is on the ground.	13.	

14.	Passenger Seats - Passenger seats shall be forward facing. Double seats shall be 35" minimum width and single seats 17" minimum width. The knee to hip room between the seats is to be 29" minimum. Minimum depth of seat bottom, measured on a horizontal plane from the front of the seat to the point where it joins the seatback, shall be 16". (FREEDMAN FEATHER WEIGHT MID-HI SEAT "ROCK SOLID" or equal) Passenger seat back shall be mid-height, fully padded of energy absorbent material and contoured to provide full lumbar support. Seat bottom shall be fully padded with neoprene foam. Seats to be covered with heavy-duty deluxe transit grade repel for durability level (6) and successful vendor must show proof of this upon delivery of vehicle to the agency. Repel level (6) material made by Freedman seating or equal to (GRANTEE WILL CHOOSE SEAT COLOR AFTER GRANT AWARD). All materials in seats to be flame retardant. Folding armrests on aisle seats, and with all seats having padded grab rails. Seat belts shall be provided for all passenger seats with a minimum 40" usable length above the seat (or the longest usable length is preferred) and seat belts shall be of the U.S.R. under seat retractor type. All seat mounts to meet applicable Federal Standards and to be placed so no more than 25% of the seat bottom overhangs either end of mount. Pedestals shall be inboard to eliminate tripping hazards. Seats shall be placed so that wheel well protrusion into passenger legroom space will be minimized. Successful vendor please submit picture of seats with bid. All passenger seats must have either padded grab rails or a durable, nylon plastic handle. A minimum of two (2) integrated child safety seats shall be installed in the farthest rear seats possible. Space for two (2) wheelchairs directly behind the driver will be 47 inches each, one directly behind the other.	14.	
15.	Sun Visor- Padded adjustable sun visors with center clip shall be provided for the driver side of windshield.	15.	
16.	Master Control Panel - Master control for interior lights and exterior amber flashing lights on top corner of the bus and heat/air conditioning located in driver's station area for easy access and control by the driver (NOT TO BE LOCATED ABOVE DRIVERS HEAD). All	16.	

	switches will be labeled indicating what the switch does not just be a symbol but also in writing.		
17.	Grab Rails and Stanchions - Padded vinyl-clad, heavy-duty modesty panels shall be provided to the left of the entrance door and directly behind the driver's seat with floor to ceiling stanchions provided at the aisle. There will also be a modesty panel that will be mounted directly behind the wheelchair lift. Modesty panel to be 3/4" thick and covered with white Formica. The edge of panel shall be covered with a color coordinated plastic edge around the entire perimeter. A floor to ceiling stanchion and crossbar must be installed behind the driver's seat. The cross bar must extend to the sidewall area. Vinyl pads will only be accepted around and above the entry doorframe, above the driver's door (shelf area), above the w/c door, and around the rear evaporator area. The stanchion shall not impair the driver's seat adjustment and should allow the driver to move into the passenger area. The padded modesty panel shall be 30" plus or minus 2" above the floor. Handrail to be located in such a manner as to assist passengers in getting on and off the bus. Grab rail on each seat. There will one (1) ceiling mounted full longitudinal grab rail installed that parallels the floor aisle from end to end on the street side of the bus. Modesty panel to be 3/4" thick and covered with white Formica. The edge of panel shall be covered with a color coordinated plastic edge around the entire perimeter.	17.	
18.	Heating - High output front heater plus two (2) auxiliary heaters located in the passenger section of the bus must be seat mounted and be blow down heater or wall mounted where designated only. The heaters must not be mounted to the floor but will be mounted to the seat frame. This will help with the cleaning of the bus. The heater in the rear of the bus will be a wall mounted heater and must be adjusted to the center of the bus so the jack on the wheelchair lift can be used when manually operating wheelchair lift. The heater will also be mounted 12 inches from the floor. Minimum 65,000 BTU's for each heater. (NOTE) If heater lines are installed on the exterior of body they must insulated. The heater in the rear of the bus must be a wall mounted heater or a heater that is mounted under one of the seats in the rear row of seats.	18.	

19.	Air Conditioning - Air conditioning (R134A Freon) specs on Carrier Transport Air Conditioning rear mounted unit. Will not accept R-22 or R-12 or blended Freon. The air conditioning system will be a minimum of 65,000 BTU's. Front dash AC unit shall be OEM supplied. System shall operate in conjunction with the heater/defroster system and share the same vent system and shall be a four-speed fan type and operate on R134A only. The rear mounted Carrier A/C Industries Air Conditioning unit will be mounted inside the van in the rear of the passenger compartment secured to the inside of the roof. The A/C system shall utilize a TM 16 Compressor on 134A Freon. The system shall utilize a carrier AC Industries skirt mounted condenser located on the roadside of the van body and installed to minimize collection of road dirt and facilitate maintenance. The condenser shall be a Model CM-3 with three motors enclosed within the condenser housing. The filter drier will utilize flare O-ring type fitting connections for added leak protection. A sight glass shall be located on the drier to assist with system refrigerant charging. Condenser fitting connections shall be O-ring type. Carrier unit to be a AC-713MAX. The system will utilize Carrier AC industries Model EM-1 evaporator in the passenger area. Three-speed continuous duty permanently lubricated long life motors with resistors are utilized to limit amperage requirements. The air conditioning system shall be controlled from the driver's area with arm lengths of a sitting driver. The controls shall on/off and three speed blower switch and thermostat switch. Components of the air conditioning system shall be readily accessible for maintenance. All hoses shall be refrigerant type. Hoses and fitting are qualified to SAE specification J-2064 Type- D or E. The successful vendor must certify as part of the bid package in writing that the wiring for the air conditioning circuits is adequate to withstand the transient loads expected. These circuits are protected with circuit breakers or thermal relays. When the vehicle is shut-off the heating and air-conditioning system shall be automatically shut off.	19	
20.	Paint - The bus body and chassis will be a gloss white. Then there will be two additional colors. The first color will be the major color. The second color will be the	20.	

	minor. The major and minor strips will run above the windows both being one inch and will run on both the street and curb side of the vehicle. The stripes for the bus must be painted on. The lettering on the bus can be either paint or vinyl and the agency can have a maximum of 70 letters and can be a maximum size of 8". This color scheme must include the gloss white base plus two (2) additional colors for the stripes. See the following paint scheme. Negotiations on lettering will be handled between vendor and grantee. (GRANTEE WILL CHOOSE PAINT AND LETTERING AFTER GRANT AWARD) For paint color please contact the following: Eagle Transit Cheryl Talley (406) 758-5728 The following paint scheme is an example:  Schemes will vary depending on the manufacturer. Any color scheme provided must be very similar to the example shown. If bidding other than the paint scheme shown, vendor must provide a sample/picture with their bid. Color schemes that are not similar to the example will not be acceptable. The standard color schemes for Startrans Supreme, Goshen Coach and Starcraft Bus are approved color schemes for this bid.		
21.	<u>Insulation</u> - Inside walls, ceiling and firewall area to be adequately insulated with fire resistant, nonhyposcopic, resistant to fumes, material to prevent condensation and thoroughly sealed so that drafts cannot be felt during normal operation, minimum R6 factor.	21.	
22.	<u>Wiring -</u> All cable and wiring shall be coded, and the builder shall furnish complete wiring diagram marked to show the code used. All added accessories and electrical equipment shall be wired through a constant solenoid energized by the vehicle ignition switch and have a separate circuit braking system. All	22.	

	accessories will shut off when the key is shut off.		
23.	<u>Safety and Other Equipment</u> - A. 24-passenger unit first aid kit will be mounted right behind the driver's seat on the stanchion/modesty panel.	23.	A.
	B. 10# rechargeable type A-B-C rate fire extinguisher with metal head.		B.
	C. Belt Cutter Q'Straint Q5-7590 or equal mounted in driver's area.		C.
	D. Disabled vehicle-warning device (triangular reflector kit) secured in vehicle interior.		D.
	E. Fireproof utility blanket and storage case.		E.
	F. Body Fluid clean up kit mounted right behind the driver's seat on the stanchion/modesty panel.		F.
	G. Driver's overhead storage compartment must be lockable. This compartment is different from the one over the windshield. The minimum size this compartment can be is 15" wide by 15" high by 20" long.		G.
	H. Five (5) two-passenger Freedman Seating Fold-A-Way Series with padded grab rails on each set or equal.		H.
	I. Two (2) 6" inch amber flashing warning lights mounted on upper right and left rear of bus to be used for Railroad Crossing, (lights will be "LED TRUCK LITE LIGHTING" or approved equal). Control switch mounted in Driver's control panel (NOT MOUNTED OVERHEAD).		I.
	J. One (1) Driver's Running Board mounted outside of vehicle.		J.
	K. Seatbelt extensions six (6) at the length of 12" each. These seatbelt extensions will be able to be used on any seat in the bus.		K.
	L. A sign mounted above driver's area stating in 2" lettering the height of the outside of the vehicle.		L.

	Sign to be provided on rear of bus stating in 4" lettering minimum "BUS STOPS AT ALL RAILROAD CROSSINGS", this lettering will be black. M. Vehicle should have all decals to meet ADA Requirements. PRIORITY SEATING SIGNAGE & WHEELCHAIR LOCATION SIGNAGE The vehicle shall have three decals showing that the vehicle is wheelchair accessible. One of the decals will be located on the right corner of the hood that is 4"x4", the next on the drivers front fender right below the windshield that is 4"x4", and the last one will be a 12"x12" and placed on one of the wheelchair doors. N. The rear of the bus body shall be marked with strips of reflective NSBY material to outline the perimeter of the back of the bus using material which conforms to the requirements of FMVSS 571.131 and the perimeter marking of rear emergency exits FMVSS 217. The perimeter marking of the back of the bus strips of at least 1 3/4" reflective NSBY material shall be applied horizontally above the rear window and above the rear bumper extending marking outward to the left and right rear corners of the bus. Vertical strips shall be applied at the corners connecting these horizontal strips. The reflective material will be WHITE in color. The red/white reflective material will not be accepted. O. Overhead storage compartment above the windshield. This compartment will have a door that is lockable but the compartment must be able to store items in (blanket, coat, first aid kit and body fluid kit). This is a different storage area then the driver's storage compartment. P. Mud flaps for front and rear tires. Q. License plate light must be recessed in the rear cap on the driver's side of the vehicle, a recessed space shall also be provided for the license plate. Light and plate must be recessed so that it cannot be ripped off or bent by a bus washer. License plate mounting may be done by securely mounting the bracket to the rear wall.		M. N. O. P. Q.

	R. The vehicle will have an anti-ride system for the rear of the vehicle. S. There will be three (3) sets of keys for the vehicle and accessories. Each set of keys will be put on separate key chains. T. Eight (8) Webbing loops Q'Straint Q5-7580 or approved equal. U. Booster pump will be installed to help circulate water through the heating system. The booster pump will be installed inside the vehicle with a cover over it to protect if from being damaged by the passengers. There will also be a switch mounted in the driver's master control panel to turn the booster pump on and off. The heater booster pump may be mounted to the chassis frame rail only if the water lines leading to and from the pump are insulated. The booster pump switch is not required if the booster pump operates automatically. NOTE: ALL SAFETY EQUIPMENT IS TO BE SECURED TO VEHICLE AND EASILY ACCESSIBLE TO DRIVER.		R. S. T. U.

WHEELCHAIR LIFT AND EQUIPMENT:

	SPECIFICATIONS		FURNISHED
1.	Double door opening for a fully automatic electro-hydraulic or electro-mechanical lift located on right side of the vehicle right behind the passenger entrance door (See Floor Plan). Minimum door height to be measured from door jam to floor directly below. Minimum door heights will be in compliance with Federal ADA Regulations. One (1) door to be equipped with an exterior handle and locking device the other door will have a interior handle to prevent door opening before drive is aware. The vehicle will also have a door ajar alarm that will make a noise when the wheelchair lift door is open. Each door will have top mounted steel check-style device with minimum 25 pounds springs to be provided for door so it can be secured in the open position. Windows in lift door shall be smoked as are all other transit window in bus.	1.	
2.	The wheelchair lift shall be electro-mechanical or electro-hydraulically powered with a minimum tested	2.	

	load capacity of 800 pounds and shall be totally self-contained. Braun Model L917 and/or Ricon "S" Series or equal. The pump on the wheelchair lift will be located on the side of the passenger entrance door to allow the passenger seat behind the wheelchair lift to have legroom.		
3.	The wheelchair lift must be of heavy-duty frame design concealing all elements of power drive. All sliding surfaces and load bearing surfaces must be constructed with sealed roller or sleeve bearing with adequate protection to prevent exposed greasy surfaces.	3.	
4.	The wheelchair-lifting device, electro-mechanical or electro-hydraulic powered unit must operate in both up and down modes. Any failure of the drive mechanism shall cause the lift to fail in the fail-safe mode. The power unit shall be 12 Volt electric motor operated and a minimum of 1 HP of electrical power, 2 HP for intermittent operation. The drive motor and the worm gear driven connection must contribute toward a condition that will prevent any slippage, creepage, or would prevent the platform from overhauling. In the event of a power failure, the lift platform shall be able to manually or electrically be lowered with passenger or raised without passenger. The electric motor shall be solenoid operated and controlled by either a hand-held switch on a pigtail or station operated at any location of the vehicle. All switches outside the vehicle shall be weatherproof protection covered. Switches on the outside of the vehicle shall be protected, covered, and labeled as to function.	4.	
5.	The drive mechanism must have a positive up stop that can be overridden without causing damage to vehicle or lift, and must have a fail-safe release which is capable of releasing the drive mechanism upon striking the ground or an object. Chain driven, cable driven or equipment solely dependent upon limit switches for stopping in the up or down position is acceptable. This will prevent the damage to the lift of the vehicle. The lift platform shall have a non-slip reinforced floor, capable of carrying small or balloon tire wheelchairs. The lift corporation must have a location that is painted on the platform were standees must stand when using the lift to access the bus. The platform shall have a	5.	

	minimum size of 32” wide by 48” long, including the front ramp safety guard. The platform shall have a double activated safety guard system to facilitate loading and unloading and prevent roll-off while lift is in use. Platform should fold up easily and lock for storage inside the vehicle when not in use. In the stored position, platform must have easy visibility when in direct line of sight through window. When in its stored position, it should not rattle when driven over normal paved highways. Platform shall be equipped with handrails on both sides in compliance with Federal ADA Regulations.		
6.	Platform must have the capability to be manually released without wrenches in case of failure of the automatic store assembly. The lift shall be capable of operating in a temperature range of -30 and +110 F. The lift shall be installed so as to allow easy removal of the lift and shall be readily accessible for repair and maintenance.	6.	
7.	Lift controls shall provide appropriate mechanisms to ensure that the vehicle cannot be moved when the lift is not stowed and so the lift cannot be deployed unless the interlock is engaged. The vehicle will have the Intelligent Lift Interlock system; this system will be installed to inform the driver that the interlock system is working correctly.	7.	
8.	Installation of the wheelchair lift shall not require vehicle alterations that diminish or change the structural integrity of the vehicle.	8.	
9.	A complete operator’s and service manual and a replacement parts list shall be provided with each lift unit. The manual shall have detailed section covering warranty, installation procedures, operating procedures; service and maintenance procedures and a trouble-shooting guide.	9.	
10.	Restraints for two (2) wheelchairs (See Floor Plan). Restraints to be adjustable to accommodate all wheelchair types. Wheelchair restraint track must be Sure-Lok “L” Fitting Series or equal and must be mounted flush with floor running front to rear from directly behind the driver seat to the first stationary seat on the street side of the bus. Along with shoulder	10.	

	harness and lap belt to meet ADA. Two (2) sets of Retractable wheelchair restraints must be Sure-Lok Retractor Model FF627S-4C, two (2) Lap Belts FE200842, two (2) Shoulder Belts FE200732, and two (2) storage containers FE200746 or equal (See Floor Plan). The restraint shall be of sufficient strength to retain an occupied wheelchair load of 5,000 pounds under crash conditions. Certified seat belts and shoulder harness shall be provided for the wheelchair occupants. The successful vendor will supply a storage container with a lid to store unused wheelchair restraints.		

INFORMATION TO BE FURNISHED WITH EACH VEHICLE AT TIME OF DELIVERY

	INFORMATION		FURNISHED/DATE OF DELIVERY
1.	All items listed below must be in one three ring binder for the agency. Owner's manual is not adequate.	1.	
	A. Drawing showing wiring schematics of all parts of the bus (chassis, bus body, wheelchair lift, heaters, air conditioning, all accessories and auxiliary circuits).		A.
	B. Repair and parts manual for wheelchair lifts		B.
	C. Repair and parts manual for bus body		C.
	D. Air conditioning system		D.
	E. Heating system		E.
	F. Seating (Driver's and Passenger Seats)		F.
	G. Hose, valve and wiring diagrams		G.
2.	Anticipated date of delivery (cannot exceed 100 working days APO:)	2.	

MISCELLANEOUS INFORMATION AND TECHNICAL SPECIFICATIONS FOR ALL VEHICLES

	INFORMATION/SPECIFICATIONS		APPROVED/INFORMATION
1.	<u>Warranty Information</u> – Description of warranty including time and mileage limits for body and chassis, a list of authorized dealerships in the local area that will have responsibility for warranty work, and an outline of the procedure involved in the fulfillment of warranty work.	1.	

2.	Inspections - Vehicles shall be thoroughly inspected during construction and /or upon completion to ensure that all equipment is installed and operating properly.	2.	
	A. Unit requested to be new and standard equipment unless otherwise specified. To be dealer prepared and ready to be placed into service when delivered. To include permanent Montana temporary license plate.		A.
	B. There shall be no sharp corners that will cause injury to passengers on the unit. All corners that could cause injury to passengers shall be slightly rounded and filed smooth.		B.
	C. All material installed shall be new and free of rust.		C.
	D. No wires shall be visible on the exterior or interior of the unit.		D.
	E. All units shall be thoroughly cleaned and weather sealed before inspection and delivery. Tests shall be performed to ensure that the unit is dust proof, watertight, and fume proof.		E.
	F. All signs may be painted or vinyl decals and properly placed.		F.
	G. All holes, not used by manufacturer to install OEM equipment, will be covered with a cover or plug matching adjacent colors.		G.
3.	Exceptions to Minimum Specifications – List of any exceptions to the specification you wish the Purchaser to consider. Any and all exceptions to the specifications MUST be listed. If no exceptions are listed, the equipment bid will be considered to meet or exceed the specifications.	3.	
4.	Equivalent Equipment – List of any equivalent equipment to the specification you wish the Purchaser to consider. Any and all equivalent equipment to the specifications MUST be listed. If no equivalent equipment is listed, the equipment bid will be considered to meet or exceed the specifications.	4.	
5.	Other Information – If more space is needed, attach additional sheets.	5.	

FLOOR PLAN

	INFORMATION/SPECIFICATIONS		APPROVED/INFORMATION
1.	The wheelchair lift will be located right behind the passenger entrance door.	1.	
2.	This vehicle will not have ICS seats.	2.	
3.	Also should be included is a storage container to store unused tie-downs that can be secured to the wall (1) FE200746 vinyl bag.	3.